

CLAIM AMENDMENTS

Please amend the claims as follows:

1. (Currently amended) A device ~~101~~ for thermal management of an LED ~~120~~, said device comprising:
  - a heatsink ~~160~~;
  - a substrate ~~111~~ overlying said heatsink ~~160~~;
  - a trace layer ~~130~~ overlying said substrate ~~110~~; and
  - a via ~~180~~ extending through said substrate ~~111~~, wherein said via ~~180~~ is in thermal communication with said trace layer ~~130~~ and said heatsink ~~160~~ to transfer to said heatsink ~~160~~ at least a portion of any heat applied to said trace layer ~~130~~ by said LED ~~120~~.
2. (Currently amended) The device of claim 1, further comprising:
  - a bonding layer ~~170~~ between said substrate ~~110~~ and said via ~~180~~.
3. (Currently amended) The device of claim 2, wherein said bonding layer ~~170~~ is a thermally conductive adhesive.
4. (Currently amended) The device of claim 2, wherein said bonding layer ~~170~~ is a thermally conductive tape.
5. (Currently amended) The device of claim 1, wherein said substrate ~~111~~ is a multi-layered substrate ~~112~~.
6. (Currently amended) The device of claim 1, wherein said substrate ~~111~~ is a printed circuit board.
7. (Currently amended) The device of claim 1, wherein said substrate ~~111~~ is a flexible substrate.

8. (Currently amended) The device of claim 1, wherein said via ~~180~~ includes:  
a sidewall ~~182~~ defining a channel ~~181~~ through said substrate ~~110~~, said channel ~~181~~ interfacing  
with said trace layer ~~130~~ to thereby establish the thermal communication between said via ~~180~~  
and said trace layer ~~130~~.

9. (Currently amended) The device of claim 8, further comprising:  
a thermal conductive material filling at least a portion of said channel ~~181~~.

10. (Currently amended) The device of claim 1, wherein said via ~~180~~ includes:  
a sidewall ~~182~~ defining a channel ~~181~~ through said substrate ~~110~~, said channel  
~~181~~ interfacing with said heat sink ~~180~~ to thereby establish the thermal communication between  
said via ~~180~~ and said heat sink ~~180~~.

11. (Currently amended) The device of claim 10, further comprising:  
a thermal conductive material filling at least a portion of said channel ~~181~~.

12. (Currently amended) A device ~~101~~ for thermal management of an LED ~~120~~, said  
device comprising:

a heatsink ~~160~~;

a trace layer ~~130~~; and

a flexible substrate ~~111~~ in thermal communication with said trace layer ~~130~~ and  
said heatsink ~~160~~ to transfer to said heatsink ~~160~~ any heat applied to said trace layer ~~130~~ by said  
LED ~~120~~.

13. (Currently amended) The device of claim 12, further comprising:  
a via ~~180~~ extending through said substrate ~~111~~, wherein said via ~~180~~ is in thermal  
communication with said trace layer ~~130~~ and said heatsink ~~160~~ to enhance the transfer to said  
heatsink ~~160~~ of any heat applied to said trace layer ~~130~~ by said LED ~~120~~.

14. (Currently amended) The device of claim 13, wherein said via 180 includes:  
a sidewall 182 defining a channel 181 through said substrate 110, said channel 181 interfacing with said trace layer 130 to thereby establish the thermal communication between said via 180 and said trace layer 130.
15. (Currently amended) The device of claim 14, further comprising:  
a thermal conductive material filling at least a portion of said channel 181.
16. (Currently amended) The device of claim 13, wherein said via 180 includes:  
a sidewall 182 defining a channel 181 through said substrate 110, said channel 181 interfacing with said heat sink 180 to thereby establish the thermal communication between said via 180 and said heat sink 180.
17. (Currently amended) The device of claim 16, further comprising:  
a thermal conductive material filling at least a portion of said channel 181.
18. (Currently amended) A device 101 for thermal management of an LED 120, said device comprising:  
a heatsink 160;  
a substrate 111 overlying said heatsink 160;  
a trace layer 130 overlying said substrate 110; and  
a via 180 including a sidewall 182 defining a channel 181 extending through said substrate 110, wherein said channel 181 is beneath said trace layer 130 and above said heatsink 160 to transfer any heat applied to said trace layer 130 by said LED 120 to said heatsink 160.
19. (Currently amended) The device of claim 18, further comprising:  
a thermal conductive material filling at least a portion of said channel 181.

20. (Currently amended) The device of claim 18, further comprising:  
a bonding layer ~~170~~ between said substrate ~~110~~ and said via ~~180~~.